

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) An *in vitro* system for forming cells of the T cell lineage from stem cells or progenitor cells comprising:

a cell preparation comprising OP9 stromal cells that have been modified to express a Notch ligand that supports T cell lymphopoiesis but does not support B cell lymphopoiesis of stem cells or progenitor cells

wherein the Notch ligand is Delta-like-1 or Delta-like-4 and wherein the T cells produced by the *in vitro* system comprise T cells of one or more of the following lineages:

- (a) TCR- $\alpha\beta$ <sup>+</sup> CD4<sup>+</sup>CD8<sup>+</sup> T cells; and/or
- (b) TCR- $\gamma\delta$ <sup>+</sup> T cells.

2. (Previously presented) An *in vitro* system of claim 1 wherein the Notch ligand induces T cell lineage commitment and differentiation, stage-specific progenitor expansion, TCR gene rearrangement, and T cell differentiation by hematopoietic progenitors and embryonic stem cells in the absence of the thymus.

3. (Cancelled).

4. (Previously presented) An *in vitro* system of claim 1, wherein the stem cells or progenitor cells are selected from hematopoietic progenitor cells, hematopoietic stem cells and embryonic stem cells.

5. – 9. (Cancelled).

10. (Previously presented) An *in vitro* system as claimed in claim 1 wherein the OP9 cells comprise a Delta-like-1 nucleic acid sequence shown in SEQ ID NO:8 or SEQ ID NO:9.

11. (Previously presented) An *in vitro* system as claimed in claim 1 wherein the OP9 cells comprise a Delta-like-4 nucleic acid sequence shown in SEQ ID NO:10 or SEQ ID NO:11.

12. (Currently amended) A method of forming cells of the T cell lineage comprising culturing stem cells or progenitor cells that are capable of differentiating into cells of the T cell lineage with an *in vitro* system of claim 1 to form I cells of the T cell one or more of the following lineages:

(a) TCR- $\alpha\beta$ <sup>+</sup> CD4<sup>+</sup>CD8<sup>+</sup> T cells; and/or

(b) TCR- $\gamma\delta$ <sup>+</sup> T cells.

13. (Original) A method according to claim 12 wherein the cells that are capable of differentiating into cells of the T lineage are selected from hematopoietic progenitor cells, hematopoietic stem cells and embryonic stem cells.

14. – 16. (Cancelled).

17. (Previously presented) A method of claim 12 wherein the formed cells are formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

18. – 21. (Cancelled).

22. (Currently amended) A method for expanding cells of the T cell lineage comprising:

- (a) culturing stem cells or progenitor cells capable of differentiating into cells of the T cell lineage with an *in vitro* system comprising a cell preparation comprising OP9 stromal cells that have been modified to express a Notch ligand that supports T cell lymphopoiesis but does not support B cell lymphopoiesis of stem cells or progenitor cells, wherein the Notch ligand is Delta-like-1 or Delta-like-4 and wherein the T cells produced comprise T cells of one or more of the following lineages:
- (i) CD4<sup>-</sup> CD8<sup>-</sup> CD25<sup>+</sup> CD44<sup>+</sup> double negative T cells;
  - (ii) CD4<sup>-</sup> CD8<sup>-</sup> CD25<sup>+</sup> CD44<sup>-</sup> double negative T cells;
  - (ii) ~~TCR- $\alpha\beta$~~ -CD4<sup>+</sup> CD8<sup>+</sup> double positive T cells;
  - (iii) TCR- $\alpha\beta$ <sup>+</sup> CD4<sup>-</sup> CD8<sup>+</sup> T cells; and/or
  - (iv) TCR- $\gamma\delta$ <sup>+</sup> T cells; and
- (b) isolating increased numbers of the T cell lineage, wherein the number of cells is increased by at least about 10 to 15 fold.

23. – 49. (Cancelled).